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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/782,451 | 02/19/2004 | Hans-Peter Foser | IVd15US | 5190 |
| 7590 John C. Thompson 69 Grayton Road Tonawanda, NY 14150 | | 02/21/2008 | EXAMINER WERNER, JONATHAN S | |
| | | | ART UNIT | PAPER NUMBER 3732 |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--------------------------------------|-------------------------------------|
| Office Action Summary | Application No. 10/782,451 | Applicant(s) FOSER ET AL. |
| | Examiner JONATHAN WERNER | Art Unit 3732 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 19 November 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-12,14-17,19-22 and 24-29 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-12,14-17,19-22,24-29 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)

Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)

Paper No(s)/Mail Date _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

1. This action is in response to Applicant's amendment received 11/19/07.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-12, 14-17 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, in claim 1 (lines 3-4), Applicant claims "the base structure being adapted to be placed over a prepared tooth stump having inner and outer contours." However, it is not clear from this language whether Applicant means the base structure has inner and outer contours, or if the prepared tooth stump has inner and outer contours. For the purpose of examination, Examiner will understand the limitation to mean that the base structure has the claimed contours. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-12, 14-17, 19-22, 24 and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Braiman (US 5,346,397) in view of Fisher et al. (US 6,183,256).

4. As to claims 1 and 20, Braiman discloses a dental restoration comprising a base structure (13) which has both inner and outer contours (as seen in Figure 3), and which is adapted to be placed over a prepared tooth stump (column 3, lines 53-54); a pre-fabricated (column 4, lines 5-6) comparatively hard (column 2, line 25) over structure (10/11) which has an inner contour that at least partially covers the outer contour of the base structure when assembled (see especially Figure 3), wherein the over structure has at least one pre-configured bite element on an outer contour thereof (i.e. top portion of over structure, Figure 3); and an interconnecting element (i.e. 14) for coupling the base structure and the over structure with one another (Figure 3), wherein the restoration can be constructed so that it does not need to be fired since Braiman discloses that a catalyst can be used to cause the components of the restoration to harden by photo-initiation (column 3, lines 65-67). However, Braiman fails to explicitly disclose that the interconnecting material is light-polymerizable. Fisher et al. teaches a dental restoration and method for producing said restoration in which the restoration comprises a base structure (16), an over structure (22) and a coupling element referenced as intermediary layer (18,20,21) whereby said coupling element includes an interconnecting material (21) that is light-polymerizable (column 4, lines 25-33; column 5, lines 32-37). Therefore, it would have been obvious to one having ordinary skill in the

art at the time of Applicant's invention to make the interconnecting material of Braiman light-polymerizable in order to easily and quickly harden it for bonding to the over structure, and consequently avoid a time consuming firing of the assembly. Examiner furthermore remarks that in regard to claim 1, it should be noted that Applicant is claiming an article of manufacture and not the process of forming/making the device. Accordingly, the manner in which the device is formed in claim 1, i.e. not requiring a time consuming firing of the assembly, is considered a product-by-process claim and is hence given little patentable weight since the final dental restoration product is shown as described above.

5. As to claim 2, the over structure of Braiman includes a covering element (i.e. side portions of 10/11) that is interconnected with the bite element and covers over at least one of a lingual, buccal, mesial, and distal region of the base structure, the covering element being interconnected to the base structure via the interconnecting material (Figure 3). As to claim 3, the interconnecting material extends in a surface covering manner between the base structure and the over structure and the interconnecting material fills the area between the base structure and the over structure (Figure 3). As to claims 4 and 21, Figure 3 shows the over structure has an inner contour that is compatibly configured with respect to an outer contour of the base structure; and the inner contour of the over structure and the outer contour of the base have respective circular shapes. As to claim 5, the bite element extends over the teeth of a dental patient receiving the restoration and is configured as a single member component

(Figure 3). As to claim 6, it can be seen from Figure 3 that the restoration extends to preparation borders of the teeth and the covering element covers the medial and distal sides of the teeth. As to claims 7 and 24, the over structure partially covers the base structure and the uncovered portion of the base structure is covered by an opaque material (column 3, lines 50-51).

6. As to claims 8 and 26, Figure 3 of Braiman shows the over structure partially covers the base structure and the uncovered portion of the base structure is covered by the interconnecting material. As to claims 9 and 10, the over structure is formed by the bite element and the covering element and the covering element is comprised of ceramic (column 4, line 29-31) or plastic (column 3, lines 63-64). As to claim 11, Fisher further teaches the covering element can be made of aluminum oxide ceramic or zirconium oxide ceramic (column 1, lines 40-47 & column 2, lines 19-34). As to claim 12, the interconnecting material is comprised of ceramic (column 3, lines 50-51). As to claim 14, the base structure is a metal frame (column 3, line 50). As to claim 15, Figure 13 shows the dental restoration is configured for a pre-molar or a molar. As to claim 16, the bite element of the over structure forms a tooth protuberance (Figure 3). As to claim 17, the over structure is a single member component and the bite element and the covering element are comprised of the same material (Figure 3). As to claims 19 and 27, Figure 3 shows that the base structure is capable of being securable to a peg supported by a jaw of a patient and an attachment element operable to be secured to neighboring tooth structures (i.e. via exposed interconnecting material between the over

structure and base structure). As to claim 22, Figure 3 shows the step of pressing the over structure onto the interconnecting material. With respect to claims 28 and 29, Braiman discloses the dental restoration as previously described but fails to disclose the step of cleaning a spillover of interconnecting material after the step of pressing the over structure onto the material. However, it would be an obvious matter of choice to one having ordinary skill in the art at the time of applicant's invention to clean said spilled interconnecting material so that desired shape of the dental restoration can be preserved in order to properly fit it within a patient's mouth.

7. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Braiman in view of Fisher et al., as applied to claim 20 above, and further in view of Sozio et al. (US 4,585,417). Braiman and Fisher et al. disclose the dental restoration as previously described but fail to disclose evaluating a prospective bite situation and manipulating the base structure and over structure relative to one another in an evaluation device such as an articulator. Sozio, however, teaches a method of making dental restorative device (Abstract) that is manipulated by using an articulator (column 7, lines 60-64) to simulate jaw movement and hence evaluate a prospective bite situation. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to evaluate a prospective bite situation and manipulate the base structure and over structure relative to one another using an articulator in order to simulate proper jaw movements as taught by Sozio.

Response to Arguments

8. Applicant's arguments filed 11/19/07 have been fully considered but they are not persuasive. Examiner does not understand Applicant's arguments inasmuch as they relate to the rejection at hand. Applicant has likened the construction of the dental restoration of the present invention to a jelly sandwich, and argues that such an assembly is not analogous to the construction shown by Braiman, which, as Applicant asserts, is more comparable to a bacon, lettuce and tomato sandwich. However, Applicant has not specified what components of Braiman are representative of the aforementioned bacon, lettuce and tomato. Regardless, Examiner reminds Applicant that the mere presence of additional elements in a prior art reference used to reject a claim defined by the transitional term "comprising" does not automatically disqualify said reference. Specifically, the transitional term "comprising" is inclusive, or open-ended, and does not exclude additional, unrecited elements or method steps (MPEP 211.03). Furthermore, Examiner points out that Applicant's sandwich analogy of the dental restoration of Braiman is incorrect. Notably, the construction of the restoration of Braiman is also a three part sandwich construction, just like Applicant's. Specifically, the sandwich construction of Braiman (as shown for example in Figure 3) includes a base structure (13), a hard over structure (10/11), and an interconnecting material (14) sandwiched between each structure – just like a jelly sandwich. Examiner notes that in this case, Braiman discloses that the over structure comprises both elements 10 and 11 -- the paste (11) is baked with the shell (10) to form a one-piece over structure (see column 2, lines 29-41).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JONATHAN WERNER whose telephone number is (571)272-2767. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on (571) 272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Melba Bumgarner/
Primary Examiner, Art Unit 3732

/Jonathan Werner/
Examiner, Art Unit 3732

2/11/08